

PATHWAYS

Vol. 1

APRIL 1979

No. 2

CREATIVE DRAMA

(Miss Kamala Rao attended a Workshop on Creative Drama conducted by Mrs Joy Michael, well-known in Delhi Theatre circles, and Mrs. Mina Swaminathan. She has since been effectively experimenting with this medium in Ramjas School, where she teaches. In classes VI to IX one period a week is allotted for Drama. During this time, one English teacher and one Hindi teacher, collaborate to give children this new, exciting experience. Below, Kamala shares some ideas with us.)

Child drama is based on a child's natural desire to express himself through play and make-believe and provides us an opportunity to develop in the child awareness of movement and to improve his speech. Theatre in many of our schools is often a diluted version of adult theatre. Acting techniques developed there are intended to promote communication with an audience and the actors are generally limited by scripts and the demands of producers. Child drama is not theatre; it does away with the need of scripts and audiences; it permits the child to express himself freely through movement and speech and come to terms with himself and his environment.

The teacher's main task is to stimulate the children, suggest activities and allow them to respond with their own representations. Working together in a class group, without an audience,

encourages them to state their own views without self-consciousness. Confidence is acquired as the child is placed in a variety of situations which require discussion, discovery and practice.

Drama involves imaginative work; that is a child transfers himself into other situations and in so doing he begins to have a sympathetic understanding of others. He experiments with many life-situations as when he plays at 'Cops and Robbers' or becomes a king. He understands his body, how to use it effectively and in a controlled manner. He realises the use of space. He attempts to communicate through interesting, well-chosen words.

The first task of the teacher is often one of creating an atmosphere, of setting the mood, so that the class takes their work seriously. Their

interest may be captured by playing drama games like 'Simon says', 'L-O-N-D-O-N', 'Statues' or 'Captain's Cabin', before moving on to more serious work in movement

Exercises in movement may be carried out individually, in pairs or in groups. The children could be asked to demonstrate movements as diverse as playing with a ball, sword fighting, chasing a butterfly or moving to music. Variations in the speed of the movements required may be helped along by the provision of rhythmic drumbeats-fast or slow, loud or muffled-each having a specified meaning.

Movement classes are best preceded by some form of relaxation. Some of the following can be used as starting points. While the children lie on the floor or on the lawn the teacher describes the relaxing situation which they act out. She can move around quietly to raise a hand or a leg and see if it falls back freely when she lets it go ... testing that the children are truly relaxed.

*You are lying on your back on a beach, by the sea on a hot day

*You are sleeping by the window when the sun's rays enter the room.....

*You are having a hot bath

*You are floating through the air on a magic carpet.....

Relaxation will usually be more complete if it is preceded by some form of tension.

Consider the following situations —

*You lift a heavy box on to a shelf which you can only just reach and then sink back exhausted.

*You are a piece of elastic, stretched out... and then let go.

*You are a candle burning down to a pool of molten wax on the floor.

*You are a puppet being made to dance when suddenly the strings break.

From movement the teacher can proceed to speech. Initially one can begin with mere sounds-the engine of a stalled car coming to life, the creaking of a door, the howl of the wind, raindrops falling on a glass pane

Further development can include all forms of oral expression such as conversations, discussion, word games, elocution.

When movement and speech are used together it can lead to some basic play between pairs of children. For example —

*little girl with a torn skirt and her mother

*stranger and policeman

*boy and shopkeeper

*the unexpected guest and mother

*traveller in a bus who has lost his ticket and the conductor

*visiting a relative in hospital.

This type of work can lead to group improvisation based on crowd scenes, story making and so on. Such group work will gradually enable the child to attempt the writing of his own scripts. When this phase of child drama has been reached, creative drama has truly achieved its aim for now creating, experiencing and learning are taking place, through a most effective educational medium.

KAMALA RAO

An Observation Trip

—Mrs. P. Washington,
St. Xavier's School, Delhi.

In February 1979, I conducted a lesson in class I B on 'The Parts of the Body'. After the students had learnt the names of the various parts, their uses and we had been involved in two or three question and answer sessions, I took the class outdoors on an observation trip. Each child carried a sheet of paper and a pencil on which he was told to write down what he saw, touched or smelt. The ability to recall such experiences involving the use of their senses, the sharing of their experiences with their friends would help in improving their language and sharpen their powers of observation.

On our return to the classroom I read out the work of few boys without finding fault or correcting spelling errors. We discussed the tour and then I said : "Close your eyes and think : Can you remember what it felt like just now when you were outside the classroom ?

In the cool breeze ? in the sunshine ?

Do you remember what the yellow flower smelt like ?

What kind of sound did you hear on the steps ?

What did you see when you left the playground ?

These and a variety of other questions led to much excited conversation and uninhibited response from the children.

Given below are some samples of their writing. I corrected spelling errors on each sheet before returning it the child. Feeling that the need to give him an opportunity to express himself was more important, I let him worry about correct spellings slightly later.

Nature Walk 23-2-79

"We went for a walk and saw and touched many things. I saw a class of big boys going to the playground. I saw something like a big animal going near the rabbits. I saw 8 rabbits all sitting to close to feel warm. I saw twenty-two cicels standing in a row. I slept on the grass, It was cold. I saw father and one girl. I saw one Autoricksaw going very fast. One boy was fighting with me so I took his pencil. I went to the chapel and teacher told me to say thank you to god for the lesson we learnt."

Arul Chib

My Body 23-2-79

"My teacher took us for a walk and I saw with my eyes and touch with my hands I saw many boys running down the steps. I saw the P.T. teacher. I touch the tree it was very hard. I touch the beautiful flowers. I saw one fat tather and one thin girl. I did my writing on the green grass. I saw twenty-two cycles. I saw seven red cycles. I saw god in one church I saw one fish-pond with red fishes in the water. I saw one toy frog in the water. I drink water from the cooler. I saw one school-bus."

—Kem Trivedi

My Body

I saw a miss going down the steps. In the verander I saw many boys walking. I saw a Ram-sarup. I saw one boy fithing. I saw the sun I saw my shado it was at my front. I saw many leaves on the trees. Some leaves were green. Some leaves were yello. I saw Father Stewin. I saw seven rabbits feeling coid. I saw 21 big cicels. 6 cicels are red color. I saw green grass. I saw yello and red flowers. I smell the sweet flowers with my nose. I saw a church. I saw a god. I saw a water and fish,

Vivek Malhari,

Points of View

'PATHWAYS' interviewed Mr. Radha Raman Pathak, Educational Adviser to the Ramjas Foundation. Prior to taking this assignment, Radha Ramanji has had a distinguished career at Pilani, Udaipur and Ahmedabad. He said that his first memories are of a childhood spent in a Primary school of which his grandfather was the Principal, where he wandered at will watching both students and teachers at work. This inspired him, even while an Intermediate student, to run a school under a banyan tree for the benefit of local villagers. Among his other achievements is the starting, in 1940, of a school at Moradabad which has grown to the status of a Post-graduate college.

Radha Ramanji worked for some years with Madame Montessori. He explained, "She was someone who inspired me. She laid the greatest emphasis on the importance of a suitable environment in the early education of a child. In the first years this should be carefully prepared, both at home and in the school. In the Primary classes, the teaching of concepts should always be linked with the outside world."

As Radha Ramanji has guided the EPG in the organisation and running of Orientation Work-shops for teachers on Environmental Studies, our next question was one which had been on the minds of our teachers and educationists for quite awhile.

"Should all learning in the Primary School be Environmental Studies, or linked with the environment in some way? Or, do you feel that some of our traditional patterns still have a place in Education? There are certainly some topics in our syllabi which do not seem to lend themselves to this style of teaching."

R. R. : "Environmental studies is an approach to teaching - learning. In his early years the child is an explorer; using all his senses to find out more about his world-he listens to sounds, forms ideas about things in his surroundings, their looks, their size, their taste....."

Therefore in the Nursery Class there is a strong psychological reason for letting the child learn by observing and exploring. This continues into the Primary years where he also starts to imitate adults."

PATHWAYS : "Would you call this Discovery learning?"

R. R. : "Yes, that is exactly what it is, and I feel that it should take up about fifty percent of the time in Primary classes. However, all learning cannot come through this method. About thirty percent of time may perhaps be spent on meaningful, receptive learning and the remainder on rote learning."

Asked to give examples, he went on, "Children can learn many mathematical concepts through their own efforts; by observing objects around them and noting differences in shapes, sizes, weights, heights and distances. In order to be exact they must begin to measure and verify and this brings them into the realm of exploration."

Likewise in science there is great scope for both discovery learning and meaningful receptive learning. Children should be encouraged to explore, learn by experiments, observation and examination of things.

However there are some things that a child has merely to accept-certain spellings may not be phonetic, the shapes of the letters of the alphabet, the sequence of numbers- and in these rote learning will certainly play a part."

We asked him about the importance of Art in the world of a Primary School child. He felt that like language, Art too is a means of communication-whether it consists of drawing, painting, modelling, song, dance or drama. In the Primary school, all teaching is aimed at only one objective - the development of communicative skills, preparing the child to express himself and learn from the outside world.

Radha Ramanji went on to talk of the importance of developing attitudes in children

"Certain abilities like good handwriting have to be acquired by repeated exercises and practice. It is up to the teacher to help the child realise the need for making letters of uniform size, sloping in the same direction and so on. He must not feel that it is a purposeless chore. Likewise concern about looking after his person, his property and that of his school is an attitude to be developed in him."

PATHWAYS: "Would you not say that this attitude formation, like much of a child's education is the joint responsibility of both parents and the school? What form of parent-involvement, other than doing homework do you feel there should be?"

R. R.: "Homework is a drudgery only if it is imposed. When a child is interested in a task started in school, he willingly continues with it even at home till it is finished."

It is the responsibility of a good school to let parents know the philosophy behind educational innovations being tried out by them. Only then can they be a success."

We digressed somewhat to the place of prescribed text books in the Primary school. He came out strongly against confining a child to the study of any one book throughout the year. He pointed out, "Psychologists believe that children go through explosions of knowledge. When a child becomes suddenly interested in reading he will read anything and everything available to him—books, magazines and newspapers at home, sign-boards, hoardings and advertisements outside. What then is the point of limiting him to a single text? Better methods are available today; cards prepared by the teacher books prepared by either teacher or student and shared in the class....."

It is best to let children have a wide range of reading matter available to them.

It is the teacher who has to keep in mind the steps of development outlined in the syllabus or text-book."

PATHWAYS: obviously a teacher can no longer be only a purveyor of knowledge. He has himself to be a student; constantly learning, improving himself. Comment?"

R. R.: "So far both the teacher and the text-book have been mere 'providers', while a child invariably is free and has the capacity to know or learn far more than we can 'give'."

In our country the preparation of a Primary school teacher generally follows the same lines as that of a Secondary school teacher. There is little preparation of the trainee as a practising psychologist and the course of training lasts a mere nine months. I feel that immediately after matriculation, a person is unable to cope with the training needed for effective teaching in primary classes. Graduates should be taken as teacher trainees and helped to acquire a detailed understanding of the history of child development, the philosophy and problems of childhood. After this they should work for one, or perhaps two, years under the supervision of experienced teachers.

Finally, there must be attempts to keep teachers aware of developments in education. At present, the Primary school teacher is wholly on his own with no professional guidance nor any professional literature or magazines for him to read.

Every five years, working teachers should undergo refresher and orientation courses as part of a large-scale in-service programme designed to keep them up-to-date in their field."

Before concluding we asked Radha Ramanji what suggestions he would like to make for the benefit of many of us who are trying to start effective Environmental Studies Programmes in our schools.

"I lay the greatest stress on the preparation of imaginative Web and flow charts produced by the joint efforts of teachers and their students. For the first time teachers are being asked to go beyond their text-books and students to discover their interests."

Take advantage of the natural curiosity of the child, his constant desire to ask questions. Be creative and seek substitutes for traditional teaching aids from your own environment. Shortage of funds will never be a problem if you use all the written material freely available around you, if you let children learn from commonly used gadgets, from visits to factories, shops and other places. Encourage their imagination and their ingenuity and you will be surprised at the results."

AS WE SEE IT

—The Children of Holy Child School,
New Delhi.

"Environmental Study is probably the best part of school education. We have a good time when we do E.V.S. Things we find difficult by reading books we find easier in our E.V.S. We get knowledge; we enjoy ourselves and don't get bored. When we conduct an interview we talk freely with the person of whom we are scared. We think we are playing but actually we are learning something."

—Geeta Bajaj; Class III

"I like my weekly EVS classes very much and look forward to them all week because they cause excitement. I learn much more from my EVS classes than from reading books on subjects since there is the enjoyment of doing things myself - which is very necessary to learn anything well."

—Seema Ailawadi; Class IV C

"Our teacher divided the class into seven groups and gave each one a topic to write on. I was in Group 1 and we had to write a poem on 'The Rainy Season'. Other groups were asked to write a letter, a poem on 'A Cloud' and even an essay on 'A Day on the Beach'.

We learnt the development of water transport and made models using cardboard. A variety of games played in water was taught to us.

Information was obtained on different cold drinks, their prices etc. Diagrams with their trade names were drawn and put on a board of Thermocole.

The children like the E.V.S. period so much that every one wishes to have more such periods in the week."

—Surabhi Tandon; Class IV C

YOUR ATTENTION PLEASE

PATHWAYS will be issued four times a year - in February, April, August and November. Do write and tell us about your new ideas, innovations tried out in your classroom, share your problems and experience - Contributions should reach Mrs. M. Balachandran, Principal, Ramjas School, R. K. Puram Sector IV, New Delhi-110022.

Not later than the 20th of the preceding Month.

The Annual Subscription for PATHWAYS is Rs. 5/- Please pay your subscriptions for 1979 to the contact teachers in your own schools to be passed on to us.

Outstation subscribers are requested to send Rs 6/- by M. O. (to cover cost of postage as well) directly to The Educational Planning Group, 4, Raj Niwas Marg, Delhi-110054.

FROM OUR MAIL.....

*"By reading this pamphlet, teachers share their experiences inside and outside the classroom with other teachers; and we enjoy sharing our experiences. But what I found was that the articles are too few in number. We need more articles to read".

**Suman Kalra, Ramjas School,
Anand Parvat, New Delhi.**

*"If all of us sit down and work for PATHWAYS sincerely, I don't understand why it should not come up and become a popular reference for teachers.

Nowhere in the first issue did I see anything written for Nursery teachers. As I am a newcomer in this field I would really appreciate articles written by experienced teachers".

**Rama Nair, Ramjas School,
Anand Parvat, New Delhi.**

*"Through PATHWAYS an effort has been made to present ideas for Primary School Teachers about the various aspects of Environmental Studies.

The articles are too few".

Mrs. S. Chadha, Ramjas School,
Anand Parvat, New Delhi.

*"It has given opportunities to teachers to think and act creatively and bring about a great educational reform with the help of our own environment, but it would be better if PATHWAYS is published every month.

It should also have a place for the problems faced by teachers in particular subjects and try to present solutions for them.

If articles in Hindi can also be accepted, the number of participants will increase".

Jyotsna Saxena, Ramjas School,
Anand Parvat, New Delhi.

*"PATHWAYS made interesting reading But, one question bothered me and perhaps some other colleagues too. Isn't it a little too expensive? I'm sure other friends would like to find an answer to my question. Would you help?"

—An Interested Teacher

PATHWAYS is grateful to the teachers of Ramjas School, Anand Parvat and the "Interested Teacher" for sharing their frank opinions with us. We note your suggestions regarding articles for Nursery teachers and in different subjects. This month's Web Chart is bi-lingual and we hope that Hindi teachers will make use of it. We are trying to cover costs through advertisements and of course, subscriptions. For the present it is not possible to reduce the subscription but we hope that as more and more interested teachers like all of you, start getting involved the size of the magazine will grow. You notice we are already putting on weight!

Body Language

A Fifth-standard teacher gave her students a lesson on the human body. All the youngsters came up with passing marks, except the one who wrote: "The human body is composed of three parts - the Brainium, the Borax and the Abominable Cavity. The Brainium contains the brain. The Borax contains the lungs, the liver and the living things. The Abominable Cavity contains the bowels, of which there are five A, E, I, O, and U."

— Walt Evans in Seattle Times

— From READER'S DIGEST March 1979
Page 121

Your children are not your children,
They are the sons and daughters of
Life's longing for itself,
They came through you but not from you,
And though they are with you yet
they belong not to you.
You may give them your love but
not your thoughts,
For they have their own thoughts.
You may house their bodies, but not their souls,
For their souls dwell in the house of Tomorrow,
Which you cannot visit, not even in your dreams.
You may strive to be like them, but seek not to
make them like you.
For life goes not backward nor tarries with
yesterday.

—KAHLIL GIBRAN

A Review of Non-fictional Educational Books for Children published in India

Fiction and Reality go hand in hand in moulding the mind of the young child-fiction that is meaningful and reality that is palatable, absorbing and fun.

Most publishers of children's books publish both fictional as well as non-fictional educational literature for their readers. Indian publishers have a long way to go in both these categories. Their output, so far, has been meagre and spasmodic. There are several inter-related reasons for this which do not concern us here.

This article is confined to a review of non-fictional children's literature published in India. Books in this category are not as many and as varied as one could wish, but they are on the whole competent and several are surprisingly good.

The leading publishers in this field are the National Book Trust, the Publications Division Ministry of Information and Broadcasting, India Book House, Children's Book Trust and NCERT. Thomson Press, Vikas, Hemkunt and Ratna - Bharati each have some publications in this category.

The National Book Trust has an excellent series known as Nehru Bal Pustakalaya. The books cost Rs. 1.50/- each and have been published in all the major Indian languages. There are more than 40 titles in this Series on such diverse topics as Indian Rivers, Trees, Railways, Animals, Inventions, Hockey, Cricket, the Olympics, Saints and the Indian Air Force and Navy.

The Publications Division of the I & B Ministry has published several good reference books for children in English, Hindi and some of

the other Indian languages. The books include : Better Citizenship (Rs. 1.50), Children's History of India (Rs. 8), The Indian Tiger (Rs. 5), The Indian Elephant (Rs. 5), Birds (Rs. 6), the Gandhi Story, the Nehru Story (Rs. 3.50 each) and our Tribal Children (Rs. 17).

India Book House has published :

- a) An educational, Illustrated Series for children called Let Us Know India, covering the history, geography and culture of the sub-continent. There are 12 volumes in this series, each priced at Rs. 5.
- b) a science - See and Learn series of 16 volumes, each priced at Rs. 5

The titles include Wonders of the Sky the Human Body, Hygiene and Sanitation, Insects, Flowers, Rocks & Minerals, Measurement of Time and Evolution of Life.

- c) Understanding Science-a 144 volume series of basic sciences for children, illustrated in colour and priced at Rs.5 each. 24 volumes of this series are available at present. The series was originally published by Purnell of UK and is being distributed in India by India Book House.
- d) Amar Chitra Katha comics which picturise stories from Indian history, mythology and folklore (Rs. 2.50each)
- e) Paperback books -historical and mythological tales as well as "Great Musicians of India", "Temples of India", and "Miracles in Medicine".

NCERT: In addition to text books, NCERT has published 36 supplementary readers in English. Most of these have also been published in Hindi. All the books cost less than Rs. 5. The titles include biographies of Swami Dayanand, Shri Ramkrishna, Aurobindo, Shankaracharya and Raja Ram Mohan Roy - Banking, Transport, Theater, Newspapers, Oceans, Agriculture, Spices, Bird Migration, Plant Viruses and Microbes.

Children's Book Trust has published over 100 titles in English, most of which have been translated into Hindi and some into the regional languages. The non-fictional titles include "Animals and their Babies", Birds and their families, "Fun with Science" and biographies of Nehru, Dr. Zakir Hussain, Gandhi, Tenzing Norgay and George Washington Carver.

Most of the CBT books are fiction but fiction that is strongly rooted in reality. "Maya of Mohenjodaro" and "Raman's Roman Adventure" combine history and fantasy in a fascinating manner. Some of the stories for pre-school children are excellent. "My Garden" "Home", "What Shall I Be", and "MY MOTHER" draw on familiar experiences in a child's life to give him the thrill of recognition. All the CBT books are profusely illustrated and very reasonably priced.

Thomson Press has published several excellent Semi-educational books for pre-school and nursery school children. These include

- a) My Big Animal ABC and 123 (Rs. 12.50 each),
- (b) the Learning is Fun Gift Pack of 8 books on numbers, opposites, shapes, colours etc, which introduce the youngster to basic concepts through simple colour illustrations (Rs. 10-50),
- (c) Baba Story and Activity books. These are 6 illustrated stories depicting the daily lives of 6 children from different parts of India. The figures of the children can be cut out and dressed by the

reader. Each book also contains puzzles and pictures to colour (Rs. 3.75 each).

- (d) Bulbul Activity Books : There are 6 titles at

3 levels :

Level 1 : ABC & 123

Level 2 : Plus Minus and Shapes,

Level 3 : Telling the Time, Measurement.

Each book costs Rs 2-00

Vikas Publishing House has also brought out a few semi-educational books for young children on Trees, Shapes and the Body.

Ratna Bharati is another publishing house with imaginative but very few non-fictional books to its credit. These include 2 books on Animal Life priced at Rs. 3.50 each and 6 well illustrated books on animals for pre-school children, priced at Rs. 1.25 each.

Hemkunt Press has published some good biographies in hard cover, priced at Rs. 15 each. The titles are Budha, Krishna, Guru Nanak, Mohammed and Kalidas (Rs. 5). Another of their publications is Stories from Sikh History in 9 volumes (costing from Rs. 7.25 to 4).

A new publisher to appear on the scene is Roli Books. So far Roli Books has distributed 14 illustrated books for children of 5-8 years, in a series called "Learn About". This series has been published by Far Eastern Publishers International. The 14 titles include Machines, Vehicles, Plants and Flowers, Costumes and Musical Instruments and cost Rs. 4 each. These books will soon be available in bi-lingual editions, with English as the common language and regional languages such as Hindi, Gujrathi, Bengali, Tamil, Telugu, Kannada and Malayalam.

Mrs ANUPA LAL
233, Jor Bagh,
New DELHI-3

Process of Manufacturing बनाने के तरीके

- (1) a) Earthen-Pots मिट्टी के बर्तन
b) Metal { Steel
Aluminium

धातु { स्टील
Aluminium

- (2) Famous Factories in India and their Location
बर्तनों के प्रसिद्ध कारखाने व भारत में उनकी स्थिति

UTENSILS बर्तन

Types

प्रकार

- | | | |
|---------------------|---|-----------|
| (a) Leaves | — | पत्ते |
| (b) Soil | — | मिट्टी |
| (c) Wood | — | लकड़ी |
| (d) Copper | — | कांसा |
| (e) Bronze | — | तांबा |
| (f) Iron | — | लोहा |
| (g) Brass | — | पीतल |
| (h) Gold | — | सोना |
| (i) Silver | — | चांदी |
| (j) Glass | — | शीशा |
| (k) Stainless Steel | — | स्टील |
| (l) Plastic | — | प्लास्टिक |
| (m) Aluminium | — | |

A CORRECTION

The address of Ideal Book Service was inadvertently left out in our last issue. It is :— B - 6, Safderjung Enclave, New Delhi - 110016

Miss Raj Bala's correct residential address is :— N 349, R. K. Puram
Sector VIII
New Delhi - 110029.

HISTORY

इतिहास

Changes in types of utensils used

(a) by Early man to modern man

आदि काल मानव से नवनीतम मानव तक

^^.

USES

उपयोग

खाना बनाने के लिये (a) Used for preparing food

खाने के लिये (b) Used for Eating food

खाना रखने के लिये (c) Used for Preserving food

SPECIAL UTENSILS

Pressure Cooker

Surahi/Matka

Samovar

Coffee Percolator

Milk Boiler

Learning Mathematical Concepts from the Environment

1. Concept : Separation of common shapes from their surroundings

Make collections (including pictures and drawings) of things that are :

Square	Circular	Triangular
Rectangular	Semicircular	Diamond-shaped
Cubic	Spherical	Hexagonal
	Oval	Cone-shaped
		Spirally-curved

'I Spy' games related to different shapes can be played during expeditions outside the school, on the way to class and on the way home.

2. Concept : Fitting shapes together-Tessellation

Can you find some things that fit together with no spaces between ?

Tiles, bricks, pieces of a honeycomb, shapes in a cement trellis.....

What sort of things have spaces between even when they are close together ?

A stack of round tins, balls placed in a box, eggs in a basket.....

Discussion topic : Things with straight sides that fit together without spaces between, such as books on the shelf, boxes, bricks in a wall

1. Concept : Amount of space between shapes

How can we find out how much space is not filled by the pebbles in a jar ?

Pour water into the jar until it just covers the pebbles. Then carefully drain it into a measuring jar. Repeat this several times and find the average.

Find out what happens to the amount of water if the pebbles are replaced by smaller stones, very fine gravel ?

Concept : amount contained by different shapes

Use a similar method to find out whether round tins or square tins of the same height contain more water.

3. Concept : Angles

If you look carefully you can find some different kinds of corners made when two lines meet. We call these different types of corners ANGLES.

What sort of angles can be found most easily ? Where ? (Right angles).

Try to make a device for checking the shapes that we think are right angles.

Fold a piece of paper in half and then in quarters. The corner produced is a right angle and can be matched against other shapes.

Try making right angles from toothpicks, matchsticks.

Use a round piece of cardboard and two old toothbrushes (after cutting off their heads) to make a clock face. Can you read the different times when the angle between the two needles is a right angle ?

Find examples of angles that are more than a right angle. Less than a right angle.

4. Concept : Symmetry

How many things can you find that can be divided into two matching halves ?

In many ways ? (Radial symmetry)

An apple cut in half, a wheel, certain flowers.....

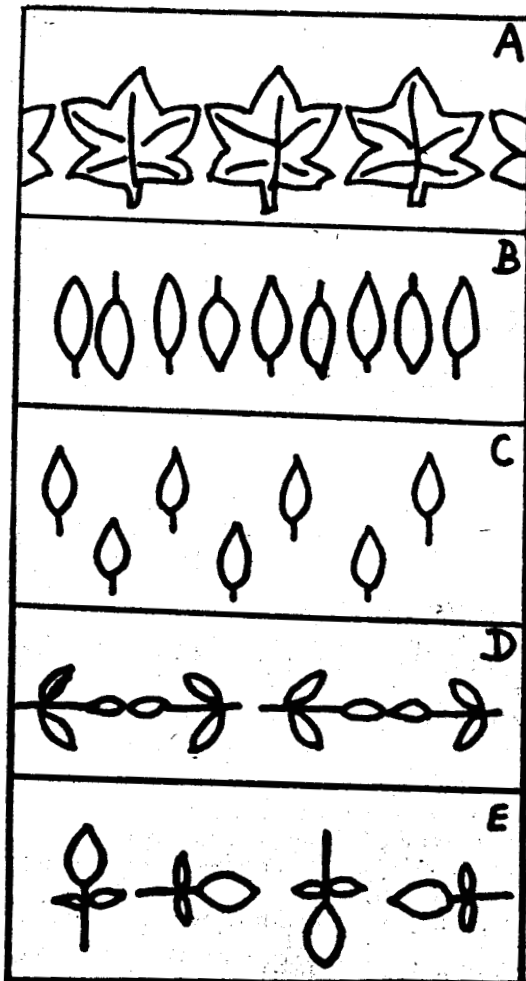
In only one way ?

A butterfly, a pair of scissors, a leaf

Concept : Asymmetry

Can you find somethings that cannot be divided into two matching halves ?

Can you produce patterns by using symmetrical shapes in repetition, reversing them, alternating them, rotating them ?



A : Repetition

B : Alternation

C : Repetition and Alternation

D : Reflection

E : Rotation

5. Concepts : Verticality, Horizontality, Parallelism (always the same distance apart)

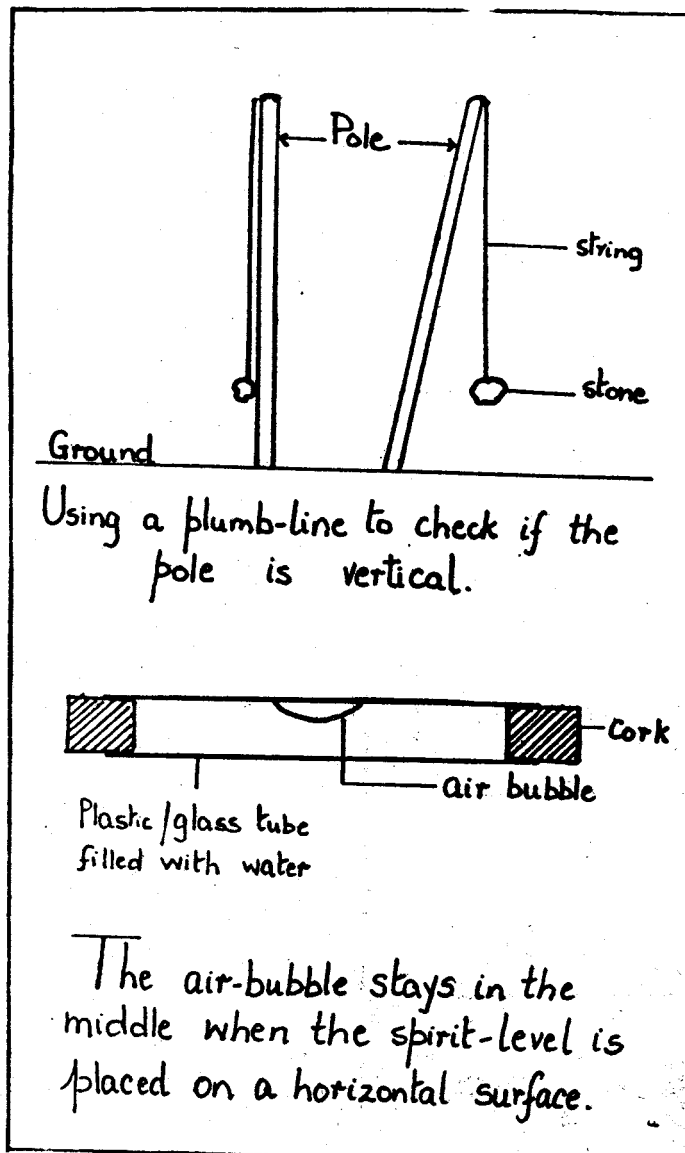
Some things stand upright, others are fixed in different positions. Shall we go out and see what we can discover about this ?

Some vertical things you might see are lamp posts, telephone poles, pipes.....

Some horizontal things you might see are the surface of water in a pool, the bars of a fence.....

Parallel lines you might find - railway tracks, the edges of a road.....

Make the two simple instruments shown below and use them to test the verticality or horizontality of various objects in your neighbourhood. Have you noticed a mason building a wall? He uses one of them. Why ?



6. Concept : Motion - as a change in the position of an object

Watch carefully and see if you can tell me exactly what happens to a ball

a) As we throw it and catch it (it is pushed from one hand to another pair of hands)

b) When I drop it (moves from a high place to a lower place)

Watch one of the birds on a lawn carefully. See if you can map where it moves as it changes its position.

How can you see over the wall ? (By climbing up on a chair)

Can you map the movements of children playing in the school playground ?

[(See-saw, swing, (Vocabulary : Up, down, right, left, high, low, forward, backward, around) merry-go-round, slide)]

7. Concept : Direction of movement

Which way does the postman go to deliver letters in your street ? Does he go in the same direction every day ?

Where do we hope our gas balloon will go when we release it ?

Describe the directions of movements of leaves blown from a tree.

Use the position of numbers on the clock face for describing movements - eg;

"I must move towards 7 o'clock to reach the tree".

Standing outside your classroom, early in the morning, find out the four directions - East, West, North, South.

Use the compass points to describe. a) The position of the Sun at different times of the day. b) The direction of the shadow of a tall stick at different times of the day.

Some of the landmarks seen during outdoor excursions.

[Adapted from Using the Environment 1 Early Explorations A Unit for teachers published for the Schools Council, U.K. by Macdonald Educational]

THINGS TO MAKE AND DO

Rocking Clown :

Materials : An old rubber ball cut in half
(or a coconut shell)

Pencil or thin wooden rod,
Plaster of Paris, Candle wax,
wet clay.

Thick Paper

Cellotape

Method : Fill one of the ball with wet
Plaster of Paris or clay and
place a pencil (or any thin stick)
vertically in the centre. Allow
the plaster/clay to dry and set.

Draw and cut out the shape of a
clown from thick paper. Colour it.
Attach it to the pencil with cellotape.

Tilt the clown forwards till his
nose touches the table, Let go

What happens ?

No matter how you tilt him the
rocking clown always bounces back
to the vertical position, why ?

An Optical Illusion

Cut out from cardboard a circle of
radius 5 cm,

Cut out from plain white paper
two more circles of the same radius

Use glue to paste them on the two
sides of the cardboard circle

Make two pairs holes at opposite
ends of the cardboard and through them
thread two lengths of twine knotted so
as to form two loops with which you
can hold the cardboard

On one side draw a line and on the
other a cage that is inverted with
respect to the lion

Holding the loops of twine one in
each hand turn the disc round and round
so that the twine is wound up

Now steady your hands and hold
the twine loops stretched

Watch what happens as the twine
unwinds.

[From Science in Action by M.A. Parasnis, published by the Macmillan Company of India Ltd.]

Things to ponder about

"To cease to think creatively is but little different from ceasing to live"

Ben Franklin.

"If you cannot do great things yourself, you can do small things in a great way"

anonymous.

"What helped you to over come the great obstacles of life ?" Was asked of a highly
successful man. "The other obstacles", he replied.

anonymous.

"The biggest room in the world is the room for improvement"

anonymous.

"A great deal of talent is lost in the world for want of a little courage".

anonymous

CLASSROOM ACTIVITIES-A STARTING POINT

The classroom climate we provide for children goes a long way in developing creativity and originality in the child. Here are some ideas that may be used as starting points for Creative Writing.

Let children look at the clouds in the sky on a sunny, cloudy or windy day. Let them identify shapes as people, animals, or objects for a story. Let them develop a plot about how they came to be in the sky.

Ask children to imagine they are unusual objects like a sheet of paper, the last chocolate in a box, or a birthday party hat. Let them write stories in the first person.

When children come in from the playground, ask them to put their heads down for a few minutes. If they are warm, let them think of the coolest thing they know like an icetray. Let them write of the things that would make them feel cool.

Let children listen to selected recorded music if possible. Discuss and encourage children to express differences of opinion and feelings about the recording. What seems like a storm to one person may seem like an explosion of fireworks to another. Let them write a story based on the music.

Show children pictures of flood victims leaving their homes. Let them imagine that they are one of the victims in the crowd and let them write their stories.

Let a child take the part of a new child and a new child (if any) the part of one who has been in the school for sometime. Let the class watch on improvised play. Let them write on "If I were a new child in the class".

Think of many more 'starting points' for creative writing-a classroom that lives is one that grows.

Mrs. Meera Balachandran

Ask Yourself

Questions Suggested by a Teacher of Environmental Studies

1. Are the children spending too much time making charts - how much true learning is going on ?
2. Do I plan my work well ahead or do I decide what to do next while I am in the E.V.S. class ?
3. Do I give children enough opportunities to SPEAK of their experiences or do I insist that they have to write down every thing ?
4. Do I ask children to amass collections OVERNIGHT or do I give them sometime ?
5. Is my work always geared to the age group in question or am I aiming too high ?
6. Does all E.V.S. work come to a halt for a lack of stationery-or do I improvise ?
7. Am I always giving too many instructions or do I permit children to discover for themselves and learn from their mistakes ?
8. Do I encourage children to make suggestions or do I strictly adhere to the WEBCHART I have drawn up ?
9. Do I plan work for the 'not so bright ones' or is it only the 'bright gems' who are working all the time ?
10. Do I check periodically, as work is going on, to see that all the skills are being developed and that there is no imbalance ?

Constantly asking ourselves these and many more such questions is necessary if we wish to remain on the PATHWAYS of successful teaching of Environmental studies.

JUST-A SMILE

The school is a child's world; a world of wonder, joy and curiosity; a world of play; a world of pure love; a world bubbling with dynamism and energy. More than anything else, it is a world of smiles and laughter.

Can we say that this is true of our schools? We, the adults who are supposed to provide this joyous world have brought into this wonderland all the worries and tensions of the adult world and contaminated its atmosphere. The adult belief that school is a place where children are prepared for their future adult life has robbed them of their childhood. Children in schools are always seriously working hard for a better future as adults. Adults have brought the world's cut-throat competition into the classrooms, into every aspect of school life and thereby killed the joy of learning. Strain and tension often shows on the faces of little children who are being treated as 'Miniature Adults'.

The responsibility of returning the smiles and laughter of childhood to our children rests heavily on the adults who run schools. While many changes will be required before education in our schools becomes truly meaningful and is happily accepted by our students, in this article I am most concerned about the fundamental need for developing a happy atmosphere and warm human relationships between children and teachers in a school.

At a Staff discussion on discipline, teachers complained that the students lacked respect and rarely greeted their teachers. It was decided that each teacher present would make a conscious attempt to overcome this problem. How? They would greet every child they met in the school, trying sincerely to smile at the child.

A few weeks later the result became obvious-the atmosphere in the school was more cordial, relaxed and happy.

I feel that adults often take their worries and tensions with them into the classroom. Ins-

tead of being positive, happy persons while in contact with their students, they permit their problems to change them into short-tempered, irritable teachers who make little or no effort to understand their children. A little auto-suggestion can perhaps help them along. Try it and see-it is a method I have experimented with successfully.

As you are getting ready to leave for school, pause and say to yourself "Children are good and loving. They love me and want to be loved by me. They are happy by nature and I will try to let them reach out for that happiness. I will have a sincere smile for every child who comes into contact with me today."

Visualise in your mind happy scenes at school - children smiling at you, greeting you cheerfully, enjoying their work and play.

Repeat these ideas to yourself as frequently as possible during the day and make sure that you are **consciously** and deliberately smiling and wishing every child you meet. Smile when you enter a classroom. Try not to lose your temper-no matter how serious the provocation. Keeping a smile on one's face may be difficult at times like that, but provocations can often be turned into opportunities for having a good laugh with the class. A teacher who can laugh at himself rarely has disciplinary problems.

A little bit of determination, patience and perseverance is certainly required. Check a month later and see if your smile has not become a part of your personality, whether you do not get a thrill out of a smile returned by a young one, whether it is not a satisfying experience.

To quote an old children's song :

"There's never any trouble if you SMILE,
There's never any trouble if you SMILE,
If there's any trouble it will vanish like a bubble,
If you only take the trouble just to SMILE."

—JOSE PAUL
The Educational Planning Group

OUR PUBLICATIONS
FOR
NURSERY, K.G. & PRIMARY CLASSES

1. Gayway English: Steps 1-3.
2. Gayway Primer.
3. Gayway Picture Book.
4. Suman's Nursery Rhymes.
5. Little Birdie in the Sky.
6. Sing Bird Sing.
7. When You Grow Up.
8. Suman's Capital Letters for Colouring & writing.
9. Suman's Small Letters.
10. Suman's ABC for Colouring & Writing.
11. Let's Count & Write Ten.
12. Suman's Number Book for colouring & Writing (1-50)
13. Suman's Number Book (1-100)
14. Suman's Table Book.
15. Suman's Elementary Arithmetic : Parts 1-2
16. New Gayway Readers : Parts 0-5.
17. Gayway English Workbooks : Parts 0-5
18. Suman's Book of General Knowledge : Parts 1-5.
19. Suman's Book of Moral Science : Part 1-5.
20. Suman's Cursive Writing : Parts 1-5
21. Suman's Pattern Writing : Parts 1-5
22. Suman Akshar Mala
23. Suman Shabd Mala
24. Suman Swar Mala
25. Suman Vekya Mala
26. Suman Hindi Praveshika
27. Suman Ka Kha Ga Chitrawali
28. Suman Shabd Chitrawali
29. Suman Swar Chitrawali
30. Suman Bal Geet
31. Dadi Amma Mujhe Batao
32. Ham Jab Honge Bade
33. Suman Hindi Sarita : Parts 1-5
34. Suman Hindi Rachna : Parts 1-5
35. Suman Samanya Gyan : Part 1-5 (General Knowledge in Hindi)
36. Suman Naitik Shiksha : Parts 1-5 (Moral Science in Hindi)
37. Suman Sulekh Mala : Parts 1-5
38. Suman's Colouring Books : Parts A-B
39. Let's Play With Colours
40. Suman's Drawing Books : Parts 1-5

Phones : 569106
561750

Suman Prakashan Pvt. Ltd.,

24-B/9, Deshbandhu Gupta Road,
Dev Nagar, New Delhi-110 005.



MACMILLAN STORIES TO REMEMBER : JUNIOR SERIES

E. F. Dodd (Retold by)

SIX TALES FROM SHAKESPEARE
(Rs. 4.65)

TALES FROM TAGORE
(Rs. 3.40)

**Thomas Hardy : THE MAYOR OF
CASTERBRIDGE (Rs. 3 90)**

SIX SHORT STORIES
(Rs. 3.15)

**STRANGE TALES FROM THE
ARABIAN NIGHTS (Rs. 3.90)**

WONDER TALES FROM GREECE
(Rs. 4.55)

R.L. Stevenson : TREASURE ISLAND
Rs. 4.25)

**Jules Verne : ROUND THE WORLD
IN EIGHTY DAYS (Rs. 4.40)**

TALES FROM THE RAMAYANA
(Rs. 3.40)

Mary Calvert (Retold by)

THE CHILDREN OF THE NEW FOREST
(Rs. 4.15)

Jane Austen : EMMA
(Rs. 3.90)

Sir Walter Scott : IVANHOE
(Rs. 5.00)

Patricia Atkinson (Retold by)

Sir walter Scott : THE TALISMAN
(Rs. 4-15)

**Oliver Goldsmith : THE VICAR OF
WAKEFIELD (Rs. 4.15)**

Katherine Lang (Retold by)

Charles Dickens : OLIVER TWIST
(Rs. 4.15)

George Eliot : SILAS MARNER
(Rs. 4.15)

Macintosh J (Retold by)

Jonathan Swift : GULLIVER'S TRAVELS
(Rs. 4.10)

Order your copies by V.P.P. from :

THE MACMILLAN COMPANY OF INDIA LIMITED

4, Community Centre

Naraina Industrial Area - Phase I

NEW DELHI-110028